CLAIMS

1. An avoidance device for ship, allowing said ship the avoidance of floating or slightly submerged objects (13) situated on its route of the ship or in a zone close to this route, characterized in that it comprises at least:

- two transmitters of acoustic waves (23, 25) spaced apart from one another,
- an acoustic receiver (29), whose reception band is suitable for the emission frequencies of the transmitters,
- means of processing of the received signals, these means making it possible to perform, through the echos received, a measurement of the difference of the propagation times of the waves transmitted by each of the transmitters as well as a measurement of the Doppler effect which affects each of the waves transmitted; these processing means thus determining the position of a the object (13) having returned an echo.

2. The device as claimed in claim 1, characterized in that the two transmitters (23, 25) transmit waves of distinct frequencies or of different waveforms.

3. The device as claimed in one of claims 1 or 2, characterized in that the processing means determine the position of an object on the basis of the calculation of the temporal deviation ΔT and of the Doppler frequency deviation ΔF_d existing between the two waves reflected by said object, a reflected wave originating from the first transmitter, and the other reflected wave originating from the second transmitter.

4. An application of the device as claimed in any one of claims 1 to 3, to a multihull ship, the two transmitters of acoustic waves (23, 25) being disposed on different hulls and the acoustic receiver (29) being disposed on any one of the hulls.

5. An application of the device as claimed in any one of claims 1 to 3, to the detection and to the avoidance of an object approaching a ship (51) at high speed, the ship being equipped with a device according to the invention on each of its edges.

6. An application of the device as claimed in any one of claims 1 to 3, to the controlling for positioning ships at the entrance of a port, the entrance of the port being equipped with at least one device according to the invention.

7. A device for avoidance of submerged obstacles for multihull ship using acoustic waves, characterized in that it comprises at least:

- a transmitter of acoustic waves disposed on one of the hulls.
- two acoustic receivers disposed on different hulls,
- means of processing of the received signals, these means making it possible to perform, through the echos received by each of the receivers, a measurement of the difference of the propagation times to the two receivers of the transmitted wave, as well as a measurement of the Doppler effect which affects each of the received waves; these processing means thus determining the position of a the object (13) having returned an echo.

8. The device as claimed in claim 7, wherein the transmitter simultaneously transmits two waves of different frequencies, each receiver having a reception band suitable for one of the transmission frequencies.